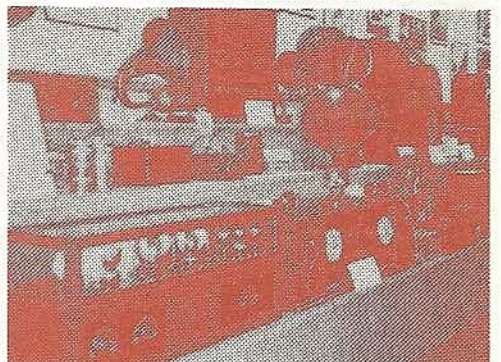
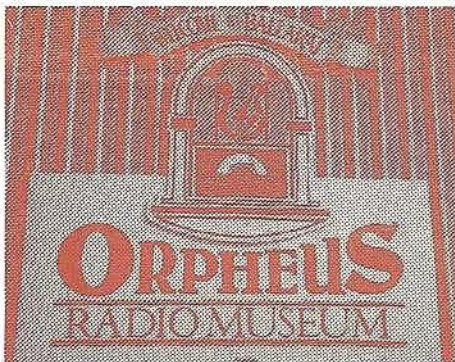
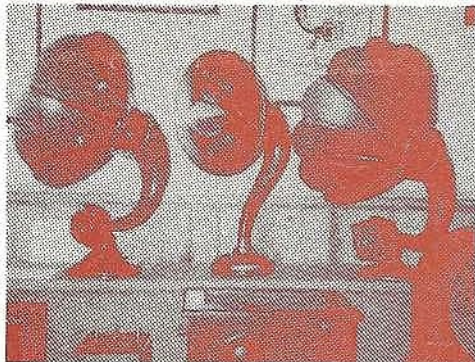
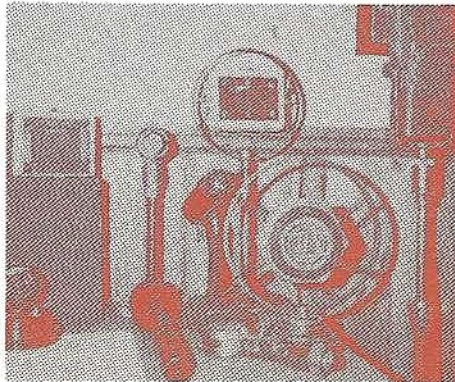
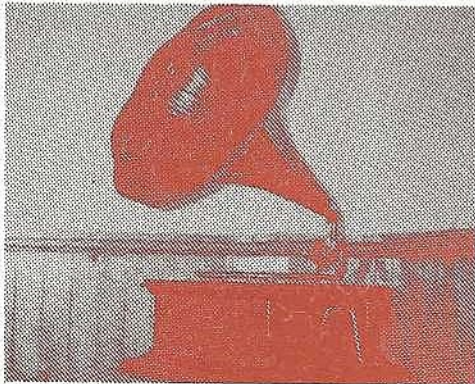


Aug 1991.



B.A.R.G. NEWS



© Monthly Newsletter of the
Ballarat Amateur Radio Group

BALLARAT AMATEUR RADIO GROUP INCORPORATED

OFFICERS 1990-1991

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Imm. Past President:	GORDON CORNELL	VK3KGC	392427	391135
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Secretary:	JIM WRIGHT	VK3CFB	327563	
Treasurer:	HARRY HEKKEMA	VK3KGL	357563	391001
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Net Co-ordinator:	CHARLIE STEWART	VK3DCS	317425	
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	REG CARTER	VK3CAZ		

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	TOM GEORGE	VK3TOM	355662	327234
	GEOFF SMITH	VK3ADB	332112	321719
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	IAN McDONALD	VK3AXH		311317
	DICK FORRESTER	VK3VU	357663	391001
	DAVID McCONNELL	VK3YNB		
Newsletter Editors:	BOB TERRILL	VK3BNC	395317	391001
	HARRY HEKKEMA	VK3KGL	357563	391001

Repeaters: VK3RBA – 146.750 Voice. Mt. Buninyong (ch. 3)

VK3RBS – 146.900 Voice. Smeaton Hill (ch. 6)

VK3RPC – 147.575 Packet. Mt. Warrenheip

Club Net: ON 3.5610 Mhz. SSB +/- QRM
Every Thursday at 8 p.m.

B.A.R.G. meets on the LAST FRIDAY in every month except December at the Ballarat Education Centre, Hopetoun St., Ballarat at 7.30 p.m.

Committee meetings are held at the Education Centre on the Wednesday two weeks prior to the Club meeting at 7.30 p.m. Executive committee members are expected to attend and any club member with business for discussion is welcome.

All correspondence to: The Secretary, BARG Inc., P.O. Box 216E, Ballarat East, 3350.

Applications for Awards to: Maurie Batt, RSD, Rokewood Junction, 3351.



CNR. RING RD. & WESTERN HWY BALLARAT
(OPEN 10AM - 5 PM 7 DAYS A WEEK)

FEATURES

- GRAMOPHONES • VINTAGE RADIOS • VISITORS PARTICIPATION
- MEMORABILIA • AUDIO DISPLAYS • DEMONSTRATIONS • CRYSTAL SETS

The "Orpheus Radio Museum" is operated by Richard and Sonja Wilson.
The collection includes their private collection, the 3BA collection and other items on loan to the museum.
The museum is run with the idea of preserving the history of radio in Australia and making it accessible to the public.
If anyone has any information or items of interest to the museum, would they please contact, or write to, the "Orpheus Radio Museum" RSD B98, Ballarat 3352. Telephone (053) 34 2513.
Let the public enjoy your piece of Radio History.

PRESIDENTS NOTE

With the weather the way it has been over the past month it is a good excuse to stay indoors, however the foxhunt members of the club were only deterred one night from competing, with the absence of a few of us on other nights who succumbed to the dreaded lurgy. A board is now available for a sniffer to enable pedestrian type foxhunts to be conducted, anyone interested in a summer type foxhunt activity now is the time to build this invaluable piece of equipment. Documentation on construction of antennas is also available.

Exams were conducted a fortnight ago so there may be some smiling faces around by the end of month meeting. The new arrangements for the exam have been worked out and a letter has been received explaining how the Federal WIA will be controlling the system. This will be mentioned at the meeting.

Numbers seem to have settled down to about 10 to 15 on the Scramble of a Sunday night, anyone who hasn't tried this fast 10 minute activity should listen to VK3RBA 146.750 at around 7:45pm on a Sunday night for instructions, and remember to keep your log sheets and hand them to me at the meetings so that your score can be tabled for end of year prizes.

A number of club members are now beaming ATV pictures of varying quality around the Ballarat city area so hopefully someone will be writing of their exploits into this field soon, a couple of circuits for receive converters wouldn't go astray so that their transmissions will not be in vain.

73's for now Tom VK3DMK.

MINUTES OF B.A.R.G. ANNUAL GENERAL MEETING HELD 26th JULY 1991.

MEETING OPENED at 7.40pm by President Ian VK3 AXH with 47 members present.

APOLOGIES VK3 KIT, AEX, KQQ, SE, NIZ, PAP, DS.

MINUTES OF A.G.M. held on June 29th June 1990 were confirmed. KG/CAZ

PRESIDENTS ANNUAL REPORT was received. DMK/JAT

AUDITED FINANCIAL REPORT was received and adopted. KGL/KG

CLUB DUES Moved by KGL seconded FGC that dues remain as 1989-90. carried.

AUDITORS Moved AXH seconded JAT that FGC and BNC be Auditors. carried.

ELECTION OF OFFICERS 1991-92. President Ian declared all Club offices vacant and called for nominations. The only changes were Tom DMK President and John CFH to Net Co-ordinator.

PAST PRESIDENT IAN thanked all members for their support in the past year and handed the gavel to President Tom who proceeded to conduct the General Meeting at 8.10pm.

4

MINUTES OF GENERAL MEETING HELD 26th JULY 1991.

MEETING OPENED by our new President Tom DMK at 8.15pm. 47 members present.

APOLOGIES VK3 KIT, AEX, KQQ, SE, NIZ, PAP, DS.

MINUTES of General Meeting held 28th June as circulated were confirmed. DCS/CAZ

TREASURERS REPORT as circulated received. Accounts for \$183.52 passed for payment. KGL/KG.

CORRESPONDENCE IN EMTRONICS invitation to inspect Kenwood TS850S.

CORRESPONDENCE OUT Mr. J. Mikkelsen. Thanks for donation of \$200.00.

NEWSLETTER Material for publication is still urgently needed.

CLUB NET. John CFH is now the Net Co-ordinator.

TECHNICAL OFFICER Dick AEX, s comprehensive report in the Newsletter.

EDUCATION Ian AXH reported that examination results from students in the Club course were the best ever. Listen out for some new callsigns.

HAMVENTION Kevin WN is still waiting to confirm the new venue.

WICEN Gordon FGC will be attending the WICEN AGM on 27th July.

GENERAL BUSINESS

It is hoped to have a speaker from the Melbourne Packet Group at our next meeting and a demonstration of ATV as well as a talk on Infra Red Communication later in the year. Any suggestions on activities or talks would be welcomed by the committee.

Moved FGC seconded ADB that the committee investigate taking a Public Risk insurance policy to cover club activities. carried.

It was suggested that we have an attendance book to be signed by members and visitors attending meetings. Give this some thought, and a decision will be made at the next meeting.

Cliff CCB and Helen are enjoying their trip and send regards.

MEETING CLOSED at 8.45pm and being AGM supper was provided. 73s Jim CFB.

#####

NEXT BARG MEETING 30th August at Education Centre. 7.30pm.

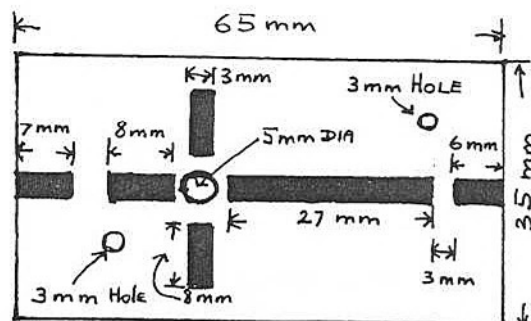
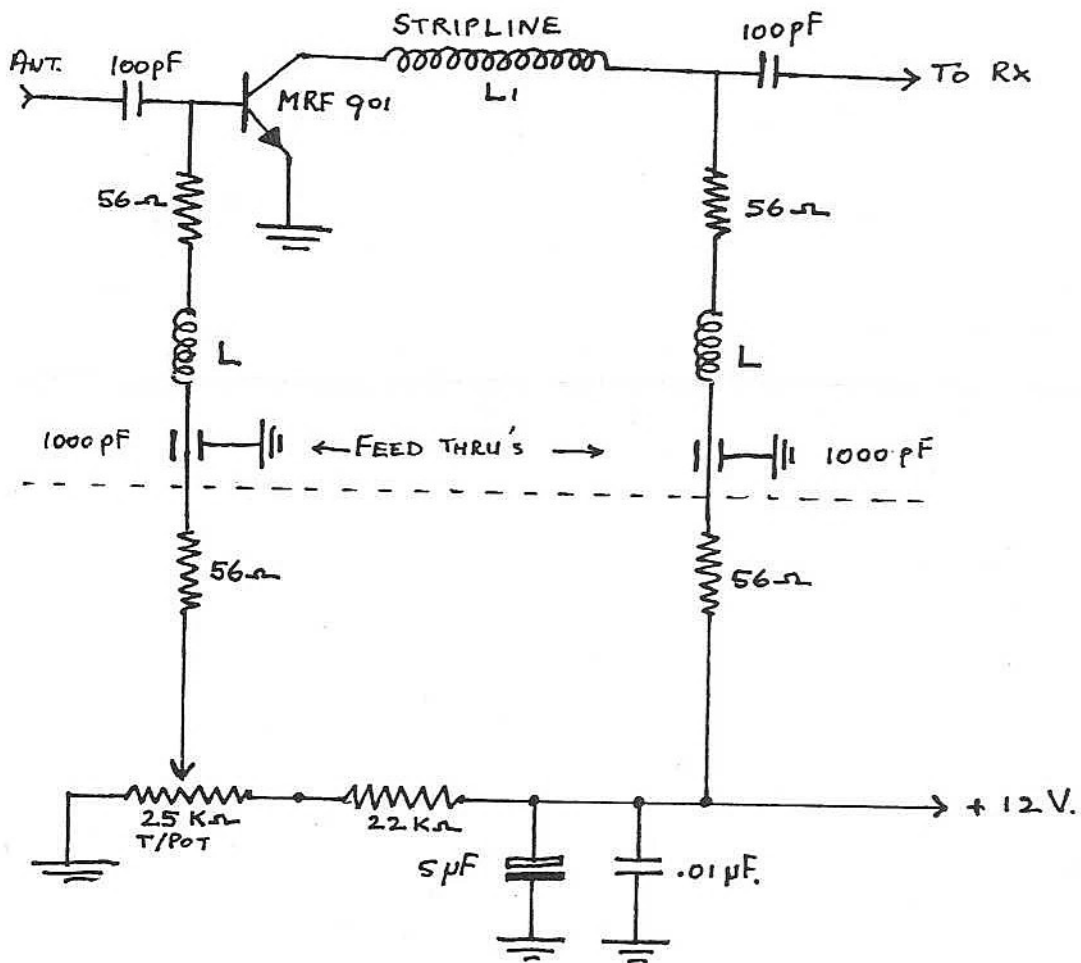
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A WIDE BAND PRE - AMPLIFIER

(Reprint BARG VK3DET)

This amplifier will work from 100Mhz to within the UHF range. It has been shown to work well at 144Mhz and should have the same gain around 500Mhz.

- Notes:
- 1 - L is constructed using 6 turns of 30 SWG wire 1/16th DIA.
 - 2 - All components shown below the dotted line are mounted on the earthed copper side of the double sided board.
 - 3 - Don't forget to earth the emitter leads to the copper earth side of the board.



INVITATION

The Ballarat Amateur Radio Group will have a talk by Peter Hallgarten from the Melbourne Packet Radio Group on the Packet Scene in Victoria.

Where it has come from..where it is now..and where it is going.

This will be on Friday the 30th of August at the monthly meeting of the Ballarat Radio club.

WHERE?.....EDUCATION CENTRE

HOPETOUN ST.

BALLARAT.

TIME?.....At 7.30 pm.

Anyone who is involved in packet or would like to know more about the subject is welcome to attend.

Regards, Merv. VK3KAW.

" 20 WATT PLUS " DUMMY LOAD WITH BUILT-IN FREE LUNCH

Here is a recipe for a good dummy load which is fully screened, can dissipate more than 20 watts continuously on the HF bands and can handle up to 100 watts for well over 1 minute. In addition it provides two nice snack lunches.

First persuade the XYL or female harmonic to purchase two Gerber Toddler tinned meals. They contain 225 grams of food which is very nice on toast but more importantly for us the containers are tinned steel and have a nice lip on the inside.

Clean out the empty tins then use a tin-opener to remove the bottom of one of them, which will be found to be a very nice fit on the lip of the other tin.

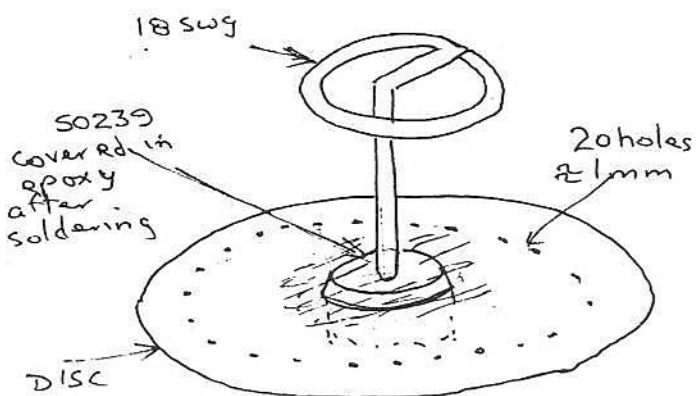
Fit a SO239 in the centre of the separated lid and solder it in place so as to be oiltight. Round the raised ring on the disc about 10 mm in from the edge drill holes (20 in number) to take a resistor lead-out.

To the centre pin of the SO 239 solder a piece of 18 s.w.g. tinned copper wire and form it as shown. This done mix up some 5 min Epoxy and seal the back of the SO 239, both the centre pin and the outer body.

Next buy 20 of 1K0 1W resistors and solder them between the ring and the disc passing the lead-out wire through the holes in the disc, which will give you a 50 ohm 20 Watt resistor.

Tin the outside edge of the disc and also the lip of the other undamaged tin. Fill the tin with either castor oil, liquid paraffin or a straight motor oil i.e. no additives or friction modifiers, then put the resistor pad into place and solder the lid to the tin, using a sizeable soldering iron. If it has been properly tinned it will not take long. Clean up the tin and paint if you like and there is your dummy load. Should you feel the need to upgrade its power rating drill two rings of holes and use 44 of 2K2 resistors and it will handle 50 Watts continuously.

Mine cost less than \$10 since I had the oil on hand plus it gave us two nice snack lunches



Statement of AWARDS

7

DX Widows Award.

B/F	332.78	Postage.	38.18
Awards	30.00	Donation	50.00
Int	1.20		\$58.18
Post&	\$63.98		
Don	58.18		
Bal	\$5.80	As at July 26th 1991.	

Western District Award.

B/F	\$8.01	Post	\$2.61
Awards	26.00	Duty	.01
Int	3.05		\$2.62
Post &	\$37.06		
Duty	2.62		
Bal	\$34.44	As at July 26th 1991.	

Gold Rush

B/F	\$31.49
Awards	15.00
Int	1.38
Bal	\$47.87 As at July 26th 1991.

Awards Manager Russell Bell Date 26/7/91 Checked By A. J. Hardy 26/7/91 Date.

NATIONAL RED NOSE DAY Friday 30th August 1991

Optical boost for underwater phone links

TWO telecommunications companies are planning to lay the first underwater fibre-optic telephone cable to rely on optical amplifiers. They boost the telephone signal optically in the fibre itself: in existing cables, the optical signal is converted into an electrical signal, amplified, then converted back into light every 50 to 100 kilometres, a process which is more expensive than optical amplification.

The two companies, AT&T of the US and Kokusai Denshin Denwa of Japan, are planning to run the cable 10 000 kilometres along the floor of the Pacific between the US and Japan. The technology, which has already been demonstrated in laboratories in Britain, Japan, the US and France, should reduce costs and make it more simple to upgrade and service cables.

The cable, which is due to be installed by 1996, will also have a much greater capacity than current undersea fibre systems. It will carry 2.4 billion bits per second on each fibre pair, compared with 300 million on the TAT-8 transatlantic cable and 565 million on new cables due to be installed in the next two or three years.

AT&T tested optical amplifiers, or repeaters, in its long-distance telephone network in the US last year, and says it plans to install some for commercial use on land, but has not given a timetable.

Optical amplifiers overcome important

Jeff Hecht, Boston

limitations of conventional electronic repeaters. They are not dependent on the format of the signal, so cable operators can upgrade transmission equipment at each end without changing the repeaters. One optical amplifier can boost signals at different wavelengths carried by the same fibre, as long as they fall within the amplifier's wavelength range.

Like lasers, optical amplifiers increase the strength of light passing through them. Lasers generate their own signals, but optical amplifiers raise the power of signals that originate from an external source. Researchers have been working on two distinct approaches, one using special semiconductor lasers, the other based on the properties of optical fibres.

In semiconductor laser amplifiers, light from the fibre-optic cable is fed into the solid-state laser device which then emits an amplified signal. They are electrically powered and can operate at a wavelength of 1.3 micrometres—as used in most current fibre telecommunication systems. Existing technology for semiconductor lasers gave the approach a head start, but power levels and beam quality were limited, and much light was lost in the process of transferring the amplified signal

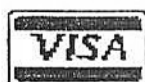
from the laser back to the fibre.

Fibre amplifiers show most promise, however. Early last year, BT&D Technologies, a joint venture of British Telecom and the chemicals company Du Pont, began marketing fibre amplifiers developed by British Telecom Research Laboratories.

AT&T and KDD have chosen fibres doped with erbium, a rare earth element which emits light near the 1.55-micrometre wavelength where fibres are most efficient. Light at a wavelength of 0.98 or 1.48 micrometres from a separate semiconductor laser excites the erbium ions to a state at which they emit the 1.55-micrometre light. When an optical signal is fed into the erbium fibre from the main cable, its photons cause the excited erbium atoms to emit photons in concert with the original signal.

Fibre amplifiers have already demonstrated stronger, quieter amplification than semiconductor laser amplifiers—and because the light is confined to a fibre, it can be transferred more easily to the output fibre.

Research laboratories around the world have shown that erbium fibre amplifiers can transmit signals impressive distances. AT&T Bell Laboratories set a record this spring by transmitting pulses up to 10 200 kilometres through a fibre loop with three 2.2-metre-long erbium fibre amplifiers separated by 25-kilometre lengths of fibre. □



For Sale



Kenwood TS-940S	with ATU & VOICE module	\$2800.00
Kenwood SM-220	Station monitor with Fan adapter	\$ 450.00
Kenwood SB-940	Speaker	\$ 150.00
Kenwood MC-85	Mike Equalizer/Comp	\$ 145.00
Kenwood HS-5	Headphones	\$ 50.00
KT-34-XA	6 Element Tribander 32Ft. boom	\$1200.00
12-FXX	Emotator Rotor - Extra Heavy Duty	\$ 950.00
TX-472S	UHF CB Electraphone	\$ 300.00
D-104	Astatic Desk Mike (New)	\$ 130.00
D-104	Astatic Desk Mike (S/H)	\$ 100.00
SM-6	Icom desk mike (New)	\$ 80.00
SP-12	Icom Mobile Speaker (New)	\$ 30.00
MX-72	Diamond Duplexor (New)	\$ 60.00
HC-4	Heil Sound Mike Insert (New)	\$ 40.00
	UHF Antenna on Glass 410-520mhz (new)	\$ 50.00
	ACME N Plugs (Teflon)	\$ 5.00 each
	Katsumi Electronic Keyer	\$ 100.00
KR-250	Rotor	\$ 150.00
	9 Element Scalar beam UHF 470-510mhz	\$ 50.00
	1 of 2, 6 El.2m phased array	\$ 150.00

Contact DAVID on Ph. 03 7256086 between 9am -11pm.

WANTED TO BUY

X'Tals for Realistic hand held CB
27.225 (ch 22)
DES VK3ASU
Ph. 053 326421

HOME HELP

I keep a small 2 cup Vacuum flask beside my electric jug on the kitchen bench. After boiling water for a cup of coffee I empty the rest of the hot water, needed to cover the element, into the vacuum flask for the next cup or two. An hour or so later the water is hot for another quick cup without waiting for the jug to boil again.

This saves electricity too as we boil more water than we need for just one cup.
Unused hot water goes back into the jug next time.

From Janette VK3ABK-F (A node is as good as a wink you know)

ps. Janette is the node at the centre of our home. de Dick VK3ABK.

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	Reg Carter	VK3CAZ	417585	

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	David McConnell	VK3YNB		
NEWSLETTER EDITORS	Bob Terrill	VK3BNC	395317	391001
	Harry Hekkema	VK3KGL	357563	391001

PEPEATERS: VK3RBA - 146.750 Voice. Mt. Buninyong. (Ch.3)
 VK3RBS - 146.900 Voice. Smeaton Hill. (Ch.6)
 VK3RPC - 147.600 Packet. Mt. Warrenheip
 VK3RBU - 438.475 Voice. Smeaton Hill

CLUB NET: On 3.5610 Mhz. SSB +/- QRM.
 Every Thursday at 8 PM.

MEETINGS: Held every last Friday of
 month at 7.30 PM. in the
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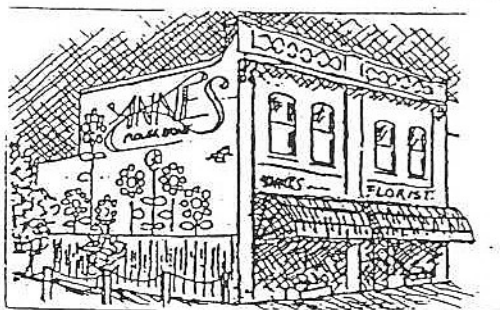
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